

PSYCHOSOCIAL PREDICTORS OF NURSING HOME PLACEMENT
AMONG THE HOSPITALIZED ELDERLY

John Kenney, D.S.W.

INTRODUCTION

Long-term institutional care of the elderly has attracted much attention in recent years out of concern for its quality (Moss and Halamandaris, 1977; Vladeck, 1980), cost (Callahan et al., 1980; Chappell and Penning, 1979) and appropriateness (Davis and Gibbin, 1971; Somers, 1982; Trager, 1984). Despite these concerns, little information is available on the factors associated with the likelihood of nursing home placement or on the relative importance of these factors (Greenberg and Ginn, 1978; Vicente et al., 1970; Wan and Weissert, 1981). The predominate reason cited for admission to a nursing home is chronic illness with its concomitant disability (Kane and Kane, 1980). However, disability research has pointed out that persons with the same chronic illness are not necessarily incapacitated to the same extent and that the critical determinants of disability may be social rather than health factors (Allen and Cinsky, 1972; Berkowitz, Johnson and Murphy, 1976; Wan, 1976; Yelin, Nevitt and Epstein, 1980).

This view is further supported by studies which found that health factors alone (eg. severity of diagnosis and extent of physical disability) were not significantly correlated with nursing home placement (Brody, 1977; Lehman et al., 1975; Vicente et al., 1979). Citing the multiplicity, complexity and chronicity of the health and social problems associated with aging, Wolf (1980) criticizes the traditional approach to predicting nursing home placement for its over-reliance on strictly medical data:

In spite of the lip-service paid to using a socio-medical model, the process of assessment remains primarily medically-oriented. The critical predictors of appropriate placement may be social factors such as type and extent of informal supports or family relationships or more subtle factors as the individual's perception of his or her own condition, attitudes or desires (p. 1145).

For Foley and Schneider (1980) this lack of agreement and knowledge ~~about the factors which might accurately predict nursing home placement is~~ "...indicative of the ill-defined nature of the long-term care delivery system and the placement decisions being made" (p. 1161).

Guided by the "person-environment interaction" model of ecological systems theory (Germain, 1978, 1979; Siporin, 1974, 1979; Wilkinson and O'Connor, 1982), the psychosocial determi-

nants of nursing home placement among the hospitalized elderly were examined. The purpose of this study was to test whether selected psychological attributes and characteristics of the elderly person's social environment are significant predictors of the likelihood of nursing home placement. Specifically, this study tested the predictive significance of locus of control orientation, social network relationships and social support on the likelihood of nursing home placement among the hospitalized elderly. The following hypotheses were tested at the .05 level of statistical significance:

- 1) Internal locus of control orientation is positively associated with social support
- 2) Internal locus of control orientation is inversely associated with the likelihood of nursing home placement.
- 3) Internal locus of control orientation is associated with engaged or disengaged social networks whereas external locus of control orientation is associated with trapped or abandoned social networks.
- 4) External locus of control orientation, less social support and trapped and abandoned social networks are positively associated with the likelihood of nursing home placement.

METHODOLOGY

Design and Sample. This study employed both bivariate (Product-moment) and multivariate (multiple regression) correlational analysis in testing the study hypotheses. A correlational design was used to assess the degree of association between locus of control orientation, social network relationships social support and nursing home placement. A disproportionate stratified random sample procedure was used to select 117 hospitalized patients, 65 years of age or older, referred to the Social Work Department of a large (over 800 beds), acute-care teaching hospital. Participation was contingent on the patient's willingness and ability to answer a standardized questionnaire.

Data Collection and Instruments. Data was collected over a 7 month period using a structured interview schedule. Sources for the data were patients, their physicians, nurses and medical records. The research instrument consisted of the following eight standardized measure: Two Factor Index of Social Position (Hollingshead, 1956); Mental Status Questionnaire (Kahn et al., 1963); Social Network Typology (Rundall and Evashwick, 1982; Coe et al., 1984); Social Resources Scale (OARS, 1978); Locus of Control Orientation Scale (Hunter et al., 1980); Index of

Activities of Daily Living (Katz et al., 1963); Cumulative Illness Rating Scale (Linn et al., 1968); and the Formal Services Utilization Scale (OARS, 1978). In addition to each instrument having appropriate psychometric indices of validity and reliability, these measures were selected because they: 1) had been used in previous studies of the elderly; 2) could be used with mildly cognitively impaired or confused elderly; 3) were brief and could be tolerated by a relatively ill older person in the hospital; and 4) could be administered directly by a trained interviewer and did not require extensive time of hospital staff (Barbaccia and Lurie, 1978).

RESULTS

Demographics

Participants ranged in age from 65 to 95 with a mean age of 74.5. Eighty-one (69.2%) were female and thirty-six (30.8%) male. Although six categories were included for the variable Race/Ethnicity (Asian, Black, Caucasian, Hispanic, Native American and Other), the racial/ethnic composition of the study population was 77.8% Black and @@.2% Caucasian. The marital status of respondents was: 15.4% single, 19.7% married, 11.1% divorced, 4.3% separated and 49.6% widowed.

Bivariate Analysis

Locus of Control and Perceived Social Support. The first hypothesis stated that an internal locus of control orientation would be positively associated with perceived social support. Bivariate correlational analysis of the relationship between locus of control orientation and social support (Table 1) yielded a Pearson's $r=.278$ indicating a low, but statistically significant ($p<.001$) correlation. Among this sample of hospitalized elderly, those with a belief in their own ability to effectively and causally interact with their environment (i.e., "internals") reported a greater amount of social support available to them as compared to those hospitalized elderly who tended to see the cause of personal and environment events as beyond their control and attributable to factors such as luck, fate, chance or powerful others (i.e., "externals"). The effect of such perceived social support on the outcome of nursing home placement was examined by hypothesis four.

Locus of Control and Nursing Home Placement. The second hypothesis proposed that an internal locus of control orientation would be inversely associated with the likelihood of nursing home placement. This is, it was anticipated that elderly patients who maintained a sense of competence (Germain, 1979; Maluccio, 1981),

effectance (White, 1959) or mastery (Erikson, 1960) would be less likely to be discharged to a nursing home compared to those elderly who did not see themselves as having control over their circumstances. As Table 1 shows, bivariate correlational analysis supported this hypothesis yielding a low, but statistically significant, inverse relationship between internal locus of control orientation and the outcome of nursing home placement ($r = -.184$; $p < .05$).

Locus of Control Orientation and Social Network Relationships. The fourth hypothesis stated that the social network relationships of elderly patients having an internal locus of control orientation would be characterized as either "engaged" or "disengaged" whereas the social network relationships of elderly patients having an external control orientation were more likely to be characterized as "trapped" or "abandoned".

Table 1 presents the results of the bivariate correlational analysis conducted to test this hypothesis. Two of the hypothesized relations were supported and both of these applied only the friend social network. Internal locus of control orientation demonstrated a low but statistically significant relationship with disengaged friend networks ($r = -.18$; $p < .05$). External locus of control orientation demonstrated a low but statistically significant relationship with abandoned friend networks ($r = -.15$; $p < .05$). An internal locus of control orientation was found to be significantly correlated with trapped relative network relationships ($r = -.18$; $p < .05$). No other correlations were statistically significant.

Table 1

Pearson Correlation Matrix of Locus of Control
Orientation with Social Support, Nursing Home Placement
and Social Network Relationships

Variable	Locus of Control Orientation
Social Support	.28**
Nursing Home Placement	-.18*
Social Network Relationships	
<u>Relatives</u>	
Engaged	.04
Disengaged	-.08
Trapped	-.18*
Abandoned	.09
<u>Friends</u>	
Engaged	.04
Disengaged	-.18*
Trapped	.09
Abandoned	.15*

*=p<.05

**=p<.01

Multivariate Analysis

Locus of Control Orientation, Perceived Social Support, Social Network Relationships and Nursing Home Placement. The fifth hypothesis stated that external locus of control orientation, low social support and trapped and abandoned social networks would be positively associated with the outcome of nursing home placement. Multiple regression analysis was required to test this hypothesis. First, a forward (stepwise) inclusion procedure was used in the regression analysis in order to determine which predictors were the strongest when all variables were entered into the regression equation with an "equal chance" to demonstrate their predictive power. Table 2 presents the summary of this regression analysis. As can be seen, the best predictor of nursing home placement, when all variables were given an equal chance to work was the variable of Social Support. Using a 2% contribution to the variance explained as a criterion of meaningfulness, the four strongest predictors of nursing home placement in this regression equation were: Social Support, Ability to perform Activities of Daily Living, Neurological Impairment and Mental Status. All were significant at the .01 level.

A second regression analysis was performed using a hierarchical inclusion procedure to directly test the predictive ability of the independent variables after the control variables had been entered into the regression equation. It was hypothesized that the independent variables would account for a statistically significant portion of the variance of the dependent variable above and beyond that explained by the control variables. Table 3 presents the results of this regression analysis. Of all the control variables, the three best predictors in order of strength were: Ability to perform Activities of Daily Living, Mental Status and Neurological Impairment (all $< .01$). The independent variable, Social Support, again accounted for the largest increment in the proportion of variance explained (R). The independent variable, Doubly Abandoned, (social network relationships were characterized as abandoned in both the relative and friends networks) was also a statistically significant predictor ($p < .01$). A total of 62.16 percent of the variance in the dependent variable of nursing home placement was accounted for by the combination of control and independent variables.

DISCUSSION OF STUDY FINDINGS

It appears that locus of control orientation among the elderly does significantly influence transaction with the social environment. The finding that "internals" perceive more social support to be support to be available than do "externals" is consistent with a theoretical perspective which views:

...the person as the active coordinator, mediator or determiner of action. He is not primarily a product of his past or passively subject to current conditions...the individual possesses certain disposing characteristics which serve to pattern the nature of his interaction with the environment. (Kuypers, 1972, p. 169)

This finding corroborates gerontological research which has found internals, compared to externals, to have better life satisfaction (Palmore and Luikart, 1972), adjustment to aging (Felton and Kahana, 1972; Linn and Hunter, 1979) and coping skills (Kuypers, 1972). It also raises the question that these outcomes (life satisfaction, adjustment to aging and coping) may be due to the way internals attract or generate better support systems within the social environment. As suggested by Sandler and Lakey (1982):

Table 2

Multiple Regression Summary Table: Nursing Home Placement
(Forward Selection)

Variables	Multiple R	R Square	Rsqr Change
Social Support	0.65165	0.42465	0.42465
Actvts of Daily Living	0.70628	0.49883	0.07418
Neurological	0.72984	0.53267	0.03384
Mental Status	0.74945	0.56167	0.02900
Hepatic	0.75950	0.57684	0.01517
Doubly Trapped	0.76456	0.58455	0.00770
Age	0.76801	0.58984	0.00529
Endocrine	0.77199	0.59596	0.00612
Lower GI	0.77447	0.59981	0.00384
EENT	0.77626	0.60258	0.00277
Doubly Abandoned	0.77810	0.60544	0.00286
Renal	0.78010	0.60856	0.00312
Occupation	0.78169	0.61103	0.00247
Relatives Abandoned	0.78331	0.61357	0.00254
Friends Abandoned	0.78520	0.61653	0.00296
Other GU	0.78624	0.61817	0.00164
Friends Trapped	0.78701	0.61938	0.00121
Cardiac	0.78757	0.62026	0.00088
Locus of Control	0.78781	0.62064	0.00038
Sex	0.78804	0.62100	0.00036
Upper GI	0.78820	0.62126	0.00026
Relatives Trapped	0.78830	0.62142	0.00016
Educations	0.78835	0.62149	0.00007
Psychiatric	0.78838	0.62155	0.00006
<u>Vascular</u>	<u>0.78843</u>	<u>0.62161</u>	<u>0.00007</u>

Table 2
Continued

Multiple Regression Summary Table: Nursing Home Placement
(Forward Selection)

Variables	Simple R	Beta	F
Social Support	0.65165	0.49435	30.354**
Actvts of Daily Living	0.43083	0.22630	7.227**
Neurological	0.33889	0.15527	4.164**
Mental Status	0.46911	0.17706	4.453**
Hepatic	0.00895	0.11597	1.994*
Doubly Trapped	0.10552	0.07867	0.425
Age	0.26855	0.09456	1.693*
Endocrine	0.01544	0.08301	1.3412
Lower GI	-.08706	-.03599	0.179
EENT	0.27400	0.07392	1.013
Doubly Abandoned	0.27346	0.22383	02.346**
Renal	0.01808	-.09734	1.463
Occupation	0.02502	-.04828	0.192
Relatives Abandoned	0.17076	-.10431	0.950
Friends Abandoned	0.28226	-.10441	0.996
Other GU	0.04667	-.04094	0.288
Friends Trapped	0.08296	-.03757	0.193
Cardiac	0.13914	0.03237	0.181
Locus of Control	0.18444	-.02639	0.122
Sex	-.03996	-.01976	0.081
Upper GI	-.10380	0.01909	0.063
Relatives Trapped	0.01128	0.01974	0.036
Educations	0.11597	-.01431	0.017
Psychiatric	0.26039	-.01174	0.020
Vascular	0.07941	0.00977	0.016

* $p < .05$

** $p < .01$

Table 3

Multiple Regression Summary Table: Nursing Home Placement
(Hierarchical Selection)

Variables	Multiple R	R Square	Rsqr Change
Mental Status	0.46911	0.22007	0.22007
Actvts of Daily Living	0.55095	0.30355	0.08348
Psychiatric	0.58629	0.34374	0.04019
EENT	0.61009	0.37221	0.02847
Age	0.62123	0.38592	0.01371
Neurological	0.63159	0.539891	0.01299
Cardiac	0.63858	0.40779	0.00888
Musculo-Skeletal-Integ	0.64463	0.41555	0.00776
Renal	0.64912	0.42136	0.00581
Lower GI	0.65203	0.42514	0.00378
Hepatic	0.66039	0.43612	0.01098
Endocrine	0.66296	0.43951	0.00339
Upper GI	0.66369	0.44048	0.00097
Race/Ethnicity	0.66404	0.44095	0.00047
Vascular	0.66429	0.44128	0.00033
Respiratory	0.66445	0.44149	0.00022
Occupation	0.66454	0.44162	0.00013
Education	0.66491	0.44210	0.00048
Sex	0.66498	0.44220	0.00009
Social Support	0.77751	0.60452	0.16232
Other GU	0.77840	0.60590	0.00138
Doubly Trapped	0.78143	0.61064	0.00474
Doubly Abandoned	0.78345	0.61379	0.00316
Friends Abandoned	0.78513	0.61643	0.00264
Relatives Abandoned	0.78726	0.61978	0.00334
Friends Trapped	0.78806	0.62104	0.00126
Locus of Control	0.78840	0.62158	0.00054
Relatives Trapped	0.78846	0.62167	0.00010

Table 3
Continued

Multiple Regression Summary Table: Nursing Home Placement
(Hierarchical Selection)

Variables	Simple R	Beta	F
Mental Status	0.46911	0.17739	4.238**
Actvts of Daily Living	0.43083	0.22839	5.831**
Psychiatric	0.26039	-.00960	0.012
EENT	0.27400	0.07383	0.946
Age	0.26855	0.09457	1.610
Neurological	0.33889	0.15576	3.999**
Cardiac	0.13914	0.03095	0.146
Muscul-Skeletal-Integ	0.00567	-.00728	0.009
Renal	0.01808	-.09677	1.383
Lower GI	-.08706	-.03681	0.180
Hepatic	0.00895	0.11551	1.902*
Endocrine	0.01544	0.08398	1.274
Upper GI	-.10380	0.01994	0.064
Race/Ethnicity	-.13273	0.00276	0.001
Vascular	0.07941	0.01078	0.018
Respiratory	-.03498	0.00509	0.004
Occupation	0.02502	-.04538	0.140
Education	0.11597	-.01505	0.018
Sex	-.03996	-.01795	0.059
Social Support	0.65165	0.49362	28.321**
Other GU	0.04667	-.04128	0.274
Doubly Trapped	0.10552	0.08030	0.390
Doubly Abandoned	0.27346	0.22468	2.279**
Friends Abandoned	0.28226	-.10711	0.958
Relatives Abandoned	0.17076	-.10407	0.914
Friends Trapped	-.08296	-.03811	0.183
Locus of Control	0.18444	-.02702	0.122
Relatives Trapped	0.01128	0.01716	0.023

* $p < .05$

** $p < .01$

If we view social support as a multifaceted resource (including information, task assistance, emotional support, etc.) which one can utilize to assist coping with stress, it is reasonable to expect that internals will make better use of this resource than will externals. (p.67)

The fact that those hospitalized elderly with an internal locus of control orientation compared to those with an external locus of control orientation perceived greater social support to be available (hypothesis 1) and were at significantly less risk of nursing home placement (hypothesis 2) further supports this position. Employed in this study as a construct analogous to competence (Germain, 1979; Maluccio, 1981) and effectance (White, 1959), locus of control lends credence to the "general statement that persons who believe that they can be master of their fate (in a limited sense of the word) are able to take action which achieves greater self-enhancement" (Kuypers, p. 170). The present findings indicate that those elderly who believe they are "masters of their fate" and who have a sense of their ability to interact effectively with the environment are significantly more likely to avoid the psychological "first death" (Butler, 1982) and reactions of "dread and despair" (Kane and Kane, 1981) associated with nursing home placement.

The only hypothesized correlations between locus of control orientation and social network relationships which the data supported were in the friend social network system. This implies that relative network systems may be quite distinct from friend network systems. The findings suggests that locus of control orientation plays a role in the way one related to friends but not with the way one relates to relatives. It is conjectured here that relationships with friends may be more amenable to an individual's locus of control orientation since, by definition, friendships are mutually contracted and reciprocal in nature. (The "contradictory" finding between internal locus of control orientation and trapped relative network relationships is more easily understood when considered in this context. Where the relationships are more obligatory and prescribed in nature and the interactions more likely to be based on "rule-governed behavior" (Haley, 1978), it may be more difficult for the locus of control dimension to exert an influence.)

The multivariate analysis (hypothesis 4) examined the ability of the independent variables to predict the outcome of nursing home placement under very stringent conditions. A number of powerful control variables--twenty in all--were allowed to account for whatever portion of the variance in the criterion they might explain before entering the independent variables of

locus of control orientation, social support, trapped and abandoned social networks. Although neither locus of control orientation nor the network relationships (in either the relative or friend network system alone) were strong enough to override the null hypothesis, social support emerged as the best predictor of all (contributing 16 percent to the variance explained) and the network variable doubly abandoned also demonstrated predictive significance ($p < .01$). The multicollinearity which existed between locus of control orientation and the variables Education ($r = .23$, $p < .01$), Occupation ($r = .22$, $p < .01$) and Cardiac diagnosis ($r = .19$, $p < .05$) and between social support and abandoned relative ($r = .36$, $p < .010$) and abandoned friend ($r = .48$, $p < .01$) networks is one possible explanation for the failure of locus of control orientation and abandoned relative and friend networks to surface as significant predictors in the multiple regression analysis (Pedhauzer, 1982).

IMPLICATIONS

A number of implications for social work practice can be drawn from the findings of this study. An elderly person's sense of mastery and competence (Locus of control) was found to be correlated with the social support available and the likelihood of nursing home placement. These findings suggest that the provision of support (expression of positive affect, affirmation and material or symbolic aid) may increase one's sense of environmental control and mitigate the likelihood of nursing home placement. Practice interventions need to focus both on enhancing the elderly individual's sense of competence (e.g., ego-supportive techniques) and the mobilization or creation of supportive relationships (e.g., "networking"). This finding on the importance of both psychological and environmental factors argues for a model of practice grounded in a theoretical perspective which enables the practitioner to perceive, assess and intervene in a wide-range of person-situation variables as they interact in a complex system.

The demonstrated importance of psychosocial factors on the course and outcome of hospitalization points to the need for acute-care hospitals to emphasize psychosocial care as an integral aspect of their mission and purpose. As many as 2.3 million hospital days are logged by patients awaiting nursing home placement (Urban Institute, 1981) with the predominate reason being the lack of social support. This "captive population" of elderly patients usually reaches a point where their medical problems stabilize while their need for psychosocial intervention remains constant. Social workers in health care settings need to promote policies and programs within their organizations that address the psychosocial aspects and consequences of hospitalization among the elderly.

Though the crisis of illness can present new opportunities for restoring beneficial transactions between people (Aguilera and Messick, 1982) social work practice in the primary or preventive sense (Germain, 1979; Janchill, 1979) might help to foster and strengthen mutually beneficial relationships, obviating certain conditions associated with nursing home placement (eg., "abandoned social networks")

The importance of informal social support as a determinant of nursing home placement highlights the need for social work intervention not only in direct clinical practice but in policy analysis and development. Social workers concerned with the health and social issues affecting the aged must take an active role in the promotion of policies which support the informal helping networks of the elderly. Participation in advocacy functions (Lurie, 1982) to improve governmental programs which support informal caregivers (political advocacy), to address gaps in the continuum of services provided (resource development advocacy) and to ensure that programs are accessible and appropriate for eligible individuals and families (case advocacy) is a critical element in maintaining and enhancing informal support systems for the elderly.

BIBLIOGRAPHY

- Aguilera, D. and Messick, J. (1982). Crisis Intervention: Theory and Methodology. London: C.V. Mosby Company.
- Allan, K. and Cinsky, M. (1972). General Characteristics of the Disabled Population. (Report 19). Washington, D.C.: Social Security Administration.
- Barbaccia, J. and Lurie, E. (1978). Adjustment of Older Persons After Acute Hospitalization. (Grant Application-#MH 32731-01). Washington, D.C.: Department of Health, Education and Welfare.
- Berkowitz, M., Johnson, W. and Murphy, E. (1976). Public Policy Toward Disability. New York: Praeger.
- Brody, E. (1977). Long-Term Care of Older People. New York: Human Sciences Press.
- Butler R. (1982, May 16). Cited in Washington Post article. See Meyer, L.
- Callahan, J., Diamond, L., Giele, J. and Morris, R. (1980). Responsibility of families for their severely disabled elders. Health Care Financing Review, 1(3), 29-48.
- Chappell, N. and Penning, J. (1979). The trend toward institutionalization. Research on Aging, 1, 361-387.
- Coe, R., Wolinsky, F., Miller, D. and Prendergast, J. (1984). Social network relationships and use of physician services: A re-examination. Research on Aging, 6, 1-11.
- Davis, J. and Gibbon, M. (1971). An area-wide examination of nursing home use, mis-use and non-use. American Journal of Public Health, 61, 1146-1153.
- Erikson, E. (1963). Childhood and Society, New York: W.W. Norton.
- Felton, B. and Kahana, E. (1974). Adjustment and situationally-bound locus of control among institutionalized aged. Journal of Gerontology, 29, (3), 295-301.
- Foley, W. and Schneider, D. (1980). A comparison of the level of care predictions of six long-term care patient assessment

- systems. American Journal of Public Health, 70, (11), 1152-1161.
- Germain, C. (1973). An ecological perspective on casework practice. Social Casework, 54, 323-330.
- Germain, C. (1979). Ecology and social work. In Germain, C. (Ed.), Social Work Practice: An Ecological Perspective, New York: Columbia University Press.
- Greenberg, J. and Ginn, A. (1979). A multivariate analysis of the predictors of long-term care placement. Home Health Services Quarterly, (1), 75-99.
- Haley, J. (1978). Problem-Solving Therapy. New York: Harper and Row.
- Hollingshead, A. (1957). Two-factor index of social position. (Mimeograph), New Haven, Connecticut: Yale University.
- Hunter, K., Linn, M., Harris, R. and Pratt, T. (1980). Discrimination of internal and external locus of control orientation in the elderly. Research on Aging, 2, (1), 49-59.
- Janchill, M. (1979). People cannot go it alone. In Germain, C. (Ed.), Social Work Practice: An Ecological Perspective, New York: Columbia University Press, 346-363.
- Kahn, R., Goldfarb, A., Pollack, M. and Peck, A. (1960). Brief objective measures for the determination of mental status in the aged. American Journal of Psychiatry, 117, 326-328).
- Kane, R. and Kane, R. (1981). Assessing the Elderly: A Practical Guide to Measurement. Lexington, Massachusetts: Lexington Books.
- Katz, S., Ford, A., Moskowitz, R., Jackson, B and Jaffe, M. (1963). Studies of illness in the aged, the index of ADL: A standardized measure of biological and psychosocial function. Journal of the American Medical Association, 185, 94ff.
- Kuypers, J. (1972). Internal-external locus of control, ego functioning and personality characteristics in old age. The Gerontologist, 12, 168-172.
- Lehman, J., Delateur, B., Fowler, R., Warren, C., Annhold, R., Schertzer, G., Hurba, R., Whitmore, J., Massock, A., and Chambers, K. (1975). Stroke rehabilitation: Outcome and prediction. Archives of Physical Medicine and Rehabilitation, 56, 383-389.

- Linn, B., Linn, M. and Gurel, L. (1968). Cumulative illness rating scale. Journal of the American Geriatrics Society, 16 (5), 622-626.
- Linn, M. and Hunter, K. (1979). Perception of age in the elderly. Journal of Gerontology, 34, (1), 46-52.
- Lurie, A. (1982). The social work advocacy role in discharge planning. Social Work in Health Care, 8, (2), 75-85.
- Maluccio, A. (1981). Promoting Competence in Clients: A New/Old Approach to Social Work Practice. New York: Free Press.
- Meyer, L. (1982, May 16). A predicament for all. Washington Post, Section A.
- Moss, F. and Halamandaris, V. (1977). Too Old, Too Sick, Too Bad. Maryland: Aspen Systems Corporation.
- Older Americans' Resources and Services (OARS). (1978). The OARS Multi-Dimensional Functional Assessment Manual. Durham, N.C.: The Duke University Center for the Study of Aging and Human Development.
- Palmore, E. and Luikart, C. (1972). Health and social factors related to life satisfaction. Journal of Health and Social Behavior, 13, 68-80.
- Rundall, T. and Evashwick, C. (1982). Social networks and help-seeking among the elderly. Research on Aging, 4 (2), 205-226.
- Sandler, I. and Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. American Journal of Community Psychology, 10 (1), 65-80.
- Siporin, M. (1972). Situational assessment and intervention. Social Casework, 53, (2), 91-109.
- Siporin, M. (1979). An Introduction to Social Work Practice. New York: MacMillan.
- Somers, A. (1982). Long-term care for the elderly and disabled: A new health priority. The New England Journal of Medicine, 307 (4), 221-226.
- Trager, B. (1984). The problem of long-term care for the older population of the United States. Coordinator, May, 2-3.
- Urban Institute. (1981). Unpublished report cited in Coordinator (1983) May, 32-33.

- Vincente, V., Wiley, J. and Carrington, R. (1979). The risk of institutionalization before death. Gerontologist, 17 (4), 361-367.
- Vladeck, B. (1980). Unloving Care: The Nursing Home Tragedy. New York: Basic Books.
- Wan, T. (1976). Effects of social epidemiological factors on the severity of disability for white and non-white disabled. Social Biology, 22, 235-249.
- White, R. (1959). Motivation reconsidered: The concept of competence. Psychological Review, 66, 297-333.
- Wolf, R. (1980). Appropriate placement and long-term care health planning. American Journal of Public Health, 70 (11), 1144-1145.
- Yelin, E., Nevitt, M. and Epstein, W. (1980). Toward an epidemiology of work disability. Milbank Memorial Fund Quarterly, 58 (3), 387-415.